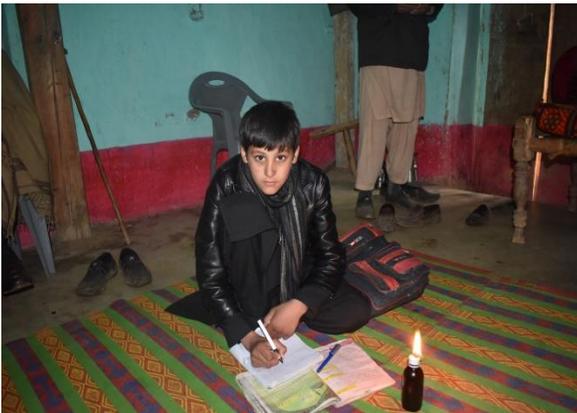# Society for Human and Environmental Development (SHED)

A Case Study

Solar Energy Defeats Darkness in Village Bilborhi, District Torghar

Ihtisham studying in the Kersone lamp light, Bilborhi in District Toghar (SHED Photo(2019)

Ihtisham enjoys home work with siblings in a solar bulb light in Bilborhi District Torghar (SHED Photo) 2019

It is past sunset in Bilborhi village, Tehsil Judba, District Torghar, Khyber Pakhtunkhwa. Thirty houses are glowing with a luminous bulb which makes this small settlement of 48 households look like a constellation of stars with dark mountains in the background. Syed Ihtishamul Haq, 11 and a student of fifth grade, lives in one of these illuminated houses. He is doing his homework sitting under the solar bulb in his house and is optimistic for good grades in coming exams.

This is a completely different situation from a year ago when he was struggling with his studies. His daily commute between home and school on foot was 6 kilometers which took most of his day leaving no time for him to study during the daylight while there was no electricity to light up a bulb after sunset. Some nights, his mother would light a kerosene lamp for his homework. The unpleasant smell and smoke from the lamp coupled with travel fatigue would make him sick often forcing him to skip his classes. He recalls those days as "tiring and exhaustive" with "headaches and strained eyes" due to kerosene smell.

Torghar District is not fully connected to the national grid and many of its parts including Bilborhi village plunge into darkness the moment sun sets in the mountains. Local burn wood or kerosene for lighting and warming their houses, especially during extreme chilly winters nights. Fueling this fire also put additional strains on their budgets.

Nearly 300 villagers of Bilborhi including Ihtisham's family had the similar fate. Every family would gather in one room to save money on fuel.

This darkness not only left the villagers in darkness but also pushed them in backwardness by making it hard for their children to study well. The byproduct of the lighting i.e. smoke negatively impacted the villagers health as well as the environment.

House Room is illuminated with Solar Bulb in Bilborhi Village, District Torghar (SHED Photo) 2019

This changed with the arrival of Society for Human & Environmental Development (SHED). The organization with financial support from Pakistan Poverty Alleviation Fund (PPAF) provided 30 households with a solar system. They also organized 10 days orientation sessions on the installation and daily maintenance of the solar system. Additionally, they trained 10 young men on repairing solar systems.

This brought about remarkable change in the lives of the villagers. Ihtisham can do his homework in the light of solar bulb after the sunset. He excitedly tells, "I complete my homework on time which saves me from punishment from teachers in school and helps me earning better grades than before. This was not possible before solar energy was introduced in my village, he added"

Not only Ihtisham is cheerful but also his whole family is satisfied with this change. His whole family enjoys offering their prayers and eating dinner in the light. His mother is pleased with smokeless house. His father is saving the fuel and medication costs.

Interestingly, 30 most vulnerable households including widow headed households and aged headed households benefited from this innovative alternative energy solutions project; some households provided with solar system in the village has voluntarily installed one solar bulb in their streets. This extra illumination in the streets helps them access to mosque for offering prayers at evenings and prevent crime and lighting assists in creating a pleasant and safe environment for children and people.

As Bilborhi is the second village in the vicinity that has electricity, many people from the surrounding villages visit to see the solar-lit homes and streets. SHED has received requests from at least two villages to introduce a similar project.